User Manual

5x5 Professional VGA with Audio Matrix Switch
AT-VGA0505

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SINCE
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INTRODUCTION

Atlona Technologies AT-VGA0505 is an 5 input 5 output commercial VGA with audio matrix switcher. The AT-VGA0505 is one of the world's advanced matrix switchers. It is capable of being controlled though RS-232 via software included or via a third party control system. Switcher is designed to handle any resolution up to 1920x1200 or 1080p without any signal degradation.

This device is mainly used in broadcast rooms, multi council-chambers, television teaching rooms, command centers and IT server rooms.

FEATURES

- Power-fail protection, allows switcher to restore previous settings
- RS-232 communication control input, allows to control switcher via included advanced control software or third party control system
- IR remote control
- Inputs: 5 x VGA female15-pin HD, 5 x 1/8" (3.5mm) mini audio
- Outputs: 5 x VGA female 15-pin HD, 5 x 1/8" (3.5mm) mini audio
- Connectors: 15-pin HD (could be used for PC resolutions up to WUXGA — 1920x1200 or HDTV up to 1080p)
- Compatible formats: RGB, YPbPr or RGBHV
- Rack mountable

PACKAGE CONTENTS

- 1x AT-VGA0505 unit
- 1x IR remote control
- 1x Installation CD
- 2x 1RU rack-mount ears
- 1x 5V DC power supply unit
- 1x User's manual

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SPECIFICATIONS

Model Name	AT-VGA0505	
Technical		
Role of usage	5x5 true matrix switcher	
Supported input/output	VGA / Component / S-video / Composite*	
Video bandwidth	400MHz	
Video support	1080p60, WUXGA [1920x1200@60] & UXGA [1600x1200@60]	
Transmission	HD [720p/1080i] – 65m [210ft]	
Audio support	Analog stereo	
Input	5x VGA [component/s-video/composite]* 5x 3.5mm analog stereo audio 1x RS-232	
Output	5x VGA [component/s-video/composite]* 5x 3.5mm analog stereo audio	
VGA connector	HD-15 [15-pin D-sub female]	
RS-232 connector	DE-9 [9-pin D-sub female]	
3.5mm connector	Earphone jack for analog stereo audio	
Input selection	IR remote control / push button / RS-232 control	
IR remote control	Electro-optical characteristics: τ = 25° / Carrier frequency: 36-40kHz	
Mechanical		
Housing		Metal enclosure
Dimensions [L x W x H]	Model	1RU – 440 x 96 x 44mm [1'5" x 3.8" x 1.7"]
	Package	490 x 225 x70mm [1'7" x 8.9" x 2.8"]
	Carton	510 x 380 x 252mm [1'8" x 1'3" x 1']
Weight	Model	890g [2.0 lbs]
	Package	2.1kg [4.6 lbs]
Fixedness		1U rack-mount with ears
Power supply		5V 4A DC
Power consumption		13 Watts [max]
Operation temperature		0~40°C [32~104°F]
Storage temperature		-20~60°C [-4~140°F]
Relative humidity		20~90% RH [no condensation]

Component and composite inputs/outputs can be done by using VGA-to-component breakout cables to connect to the VGA sockets. For S-Video inputs/outputs, please find a VGA-to-S-video adapter to connect to the VGA sockets.

PANEL DESCRIPTION

Front Panel
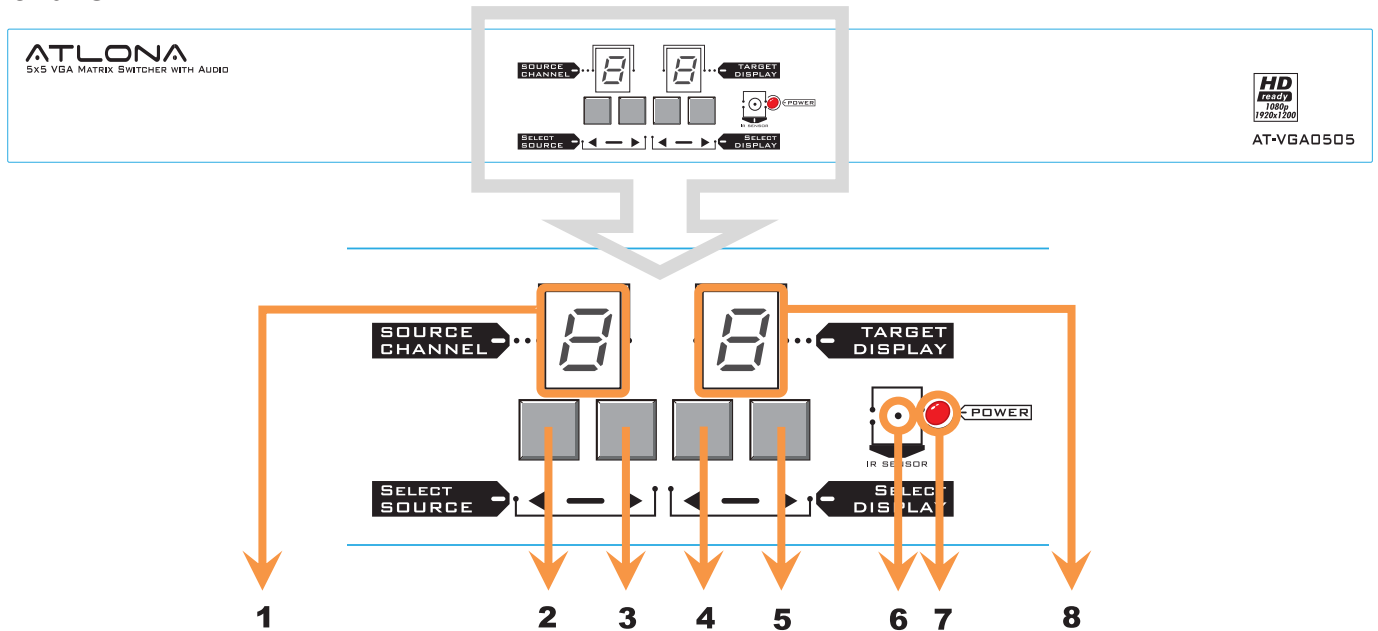
1. SOURCE CHANNEL: Display of selected input source channel
2. ◀: press the ◀ button to select input source channel in descending sequence
3. ▶: press the ▶ button to select input source channel in ascending sequence
4. ◀: press the ◀ button to select output display channel in descending sequence
5. ▶: press the ▶ button to select output display channel in ascending sequence
6. IR SENSOR: Receive IR commands from the IR remote control
7. Power ON/OFF indicator
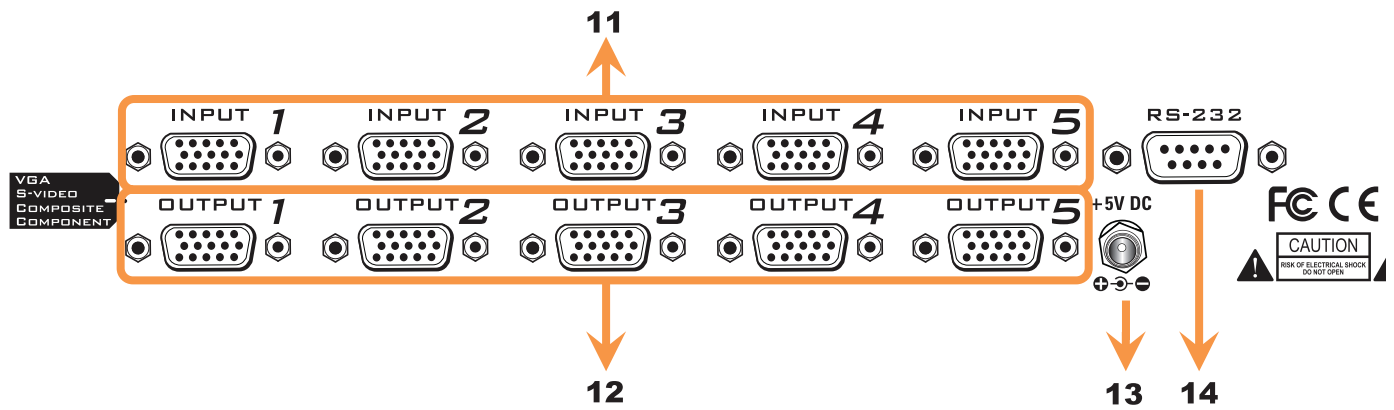8. TARGET DISPLAY: Display of selected output display channel

Rear Panel
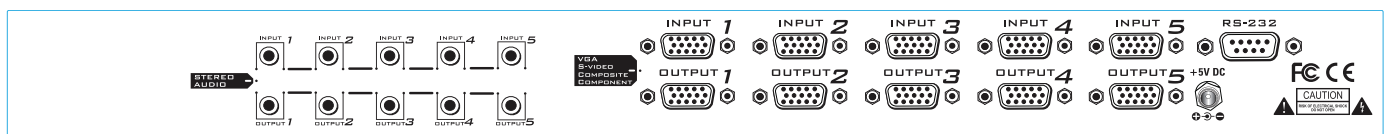
Left Side
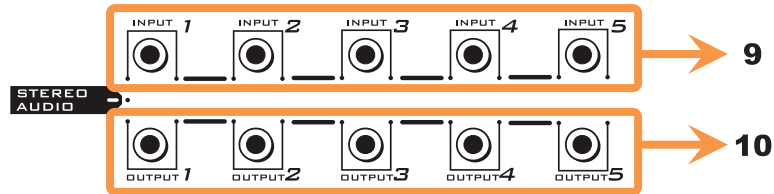
Right Side


9. INPUT1 — INPUT5: Stereo audio input channels
10. OUTPUT1 — OUTPUT5: Stereo audio output channels
11. INPUT1 — INPUT5: Analog video input channels
12. OUTPUT1 — OUTPUT5: Analog video output channels
13. +5V DC: Connect to 5V DC power supply unit
14. RS-232: Connect to a PC for software operation or firmware update

CHANNEL CONTROL

Method A: Operation by Control Software via RS-232 serial port
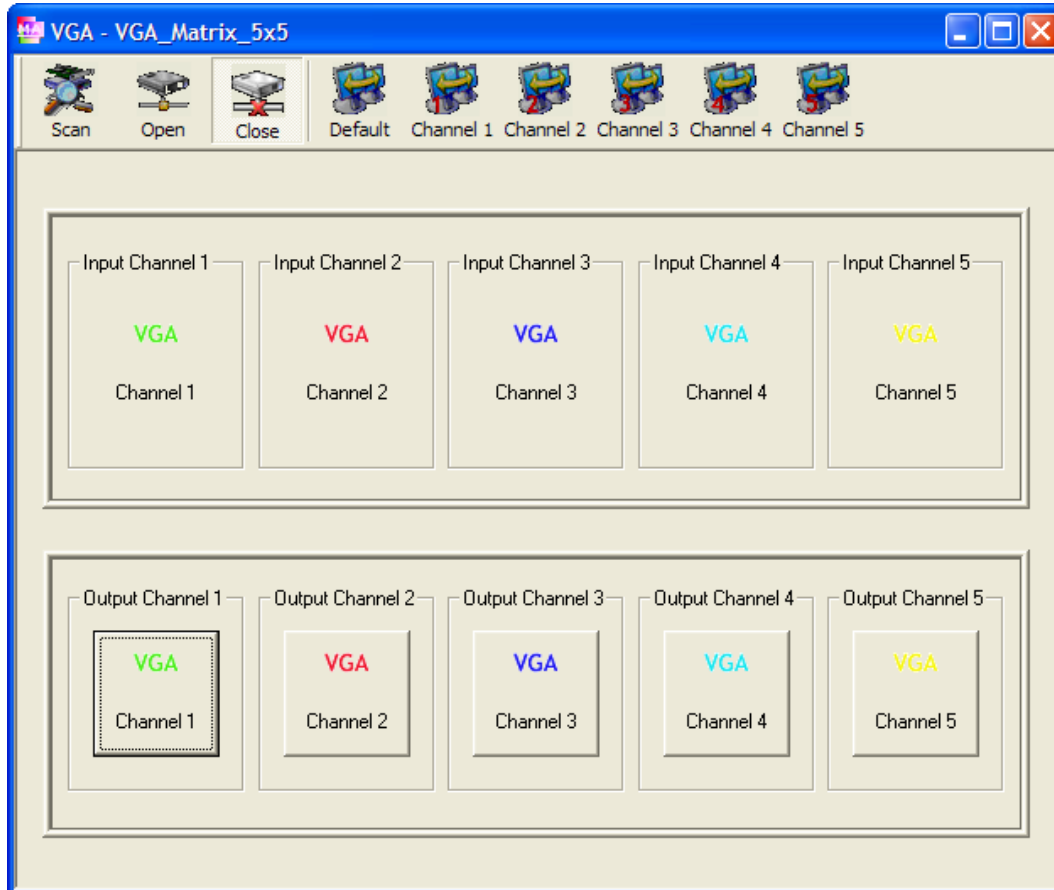
1 Scan
This button will trigger the automatic search over all the available COM ports (1-255). If the matrix is detected, a successful message window will show up. Otherwise, an error message will show up (see below). Please keep in mind that a successful connection can be established only if there is at least one COM port available.
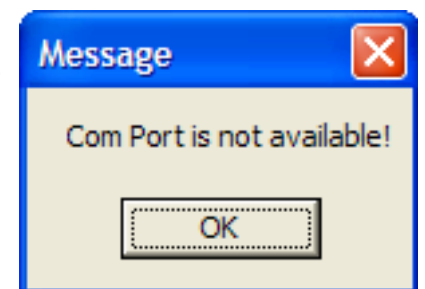
2 Open
Open the COM port after scan to establish the connection between PC and the matrix.

3 Close
Release the COM port after scan.

4 **Quick Setup Buttons — Provide fast channel setup for the matrix.**

Default

Source Channel ➔		Display Channel
Input 1	➔	Output 1
Input 2	➔	Output 2
Input 3	➔	Output 3
Input 4	➔	Output 4
Input 5	➔	Output 5

Channel 1: Input channel 1 on all outputs

Source Channel ➔		Display Channel
Input 1	➔	Output 1
Input 1	➔	Output 2
Input 1	➔	Output 3
Input 1	➔	Output 4
Input 1	➔	Output 5

Channel 2: Input channel 2 on all outputs

Source Channel ➔		Display Channel
Input 2	➔	Output 1
Input 2	➔	Output 2
Input 2	➔	Output 3
Input 2	➔	Output 4
Input 2	➔	Output 5

Channel 3: Input channel 3 on all outputs

Source Channel ➔		Display Channel
Input 3	➔	Output 1
Input 3	➔	Output 2
Input 3	➔	Output 3
Input 3	➔	Output 4
Input 3	➔	Output 5

Channel 4: Input channel 4 on all outputs

Source Channel ➔		Display Channel
Input 4	➔	Output 1
Input 4	➔	Output 2
Input 4	➔	Output 3
Input 4	➔	Output 4
Input 4	➔	Output 5

Channel 5: Input channel 5 on all outputs

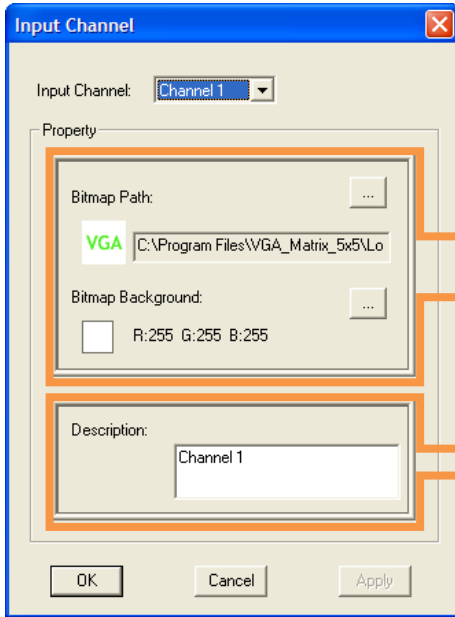| Source Channel ➔		Display Channel
Input 5	➔	Output 1
Input 5	➔	Output 2
Input 5	➔	Output 3
Input 5	➔	Output 4
Input 5	➔	Output 5

5 **Input Channel Selection**

Click on the Input Channel 1-5 buttons to select the input channel.
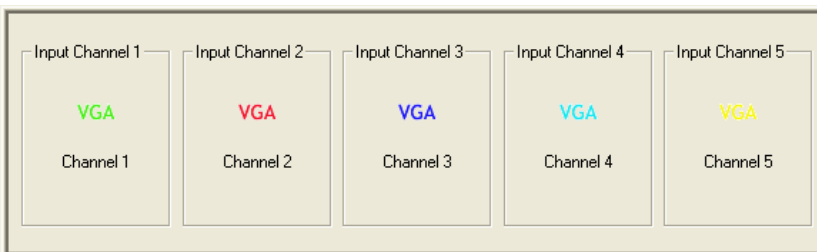
Then a pop-up menu will show up on the selected input channel for you to choose the desired output channel.
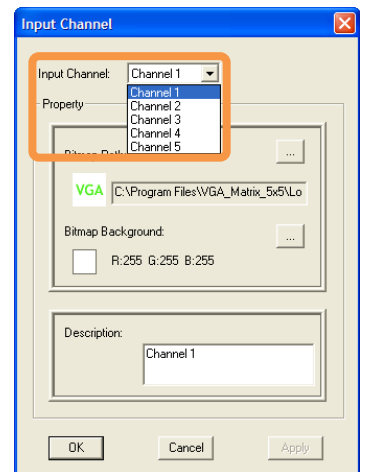
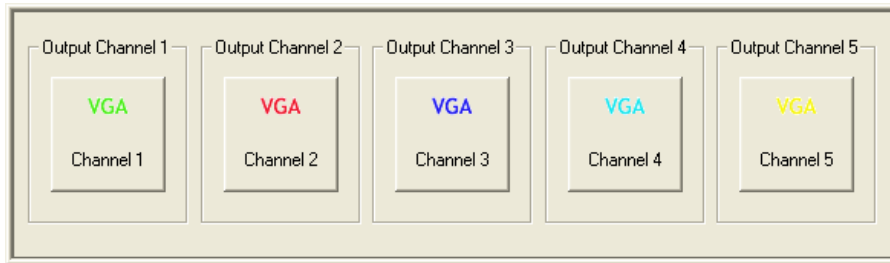Select the input channel to do bitmap and label change.

Bitmap Path:
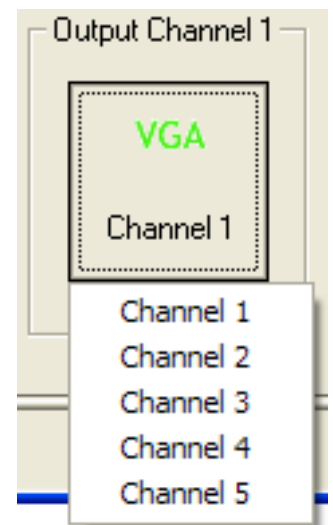Select the icon for each channel. Please notice that only pictures in BMP format are supported.

Description: Channel description.

6 **Output Channel Selection**

Click on the Output Channel 1- Output Channel 5 buttons to select the output channel.

Then a pop-up menu will show up on the selected output channel for you to choose the desired input channel.

Method B: Operation by ASCII codes via RS-232 serial port

Command Set for Windows Super Terminal:

COMMAND	ACTION	COMMAND	ACTION	COMMAND	ACTION
A1	Input 1 ➜ Output 1	C1	Input 1 ➜ Output 3	E1	Input 1 ➜ Output 5
A2	Input 2 ➜ Output 1	C2	Input 2 ➜ Output 3	E2	Input 2 ➜ Output 5
A3	Input 3 ➜ Output 1	C3	Input 3 ➜ Output 3	E3	Input 3 ➜ Output 5
A4	Input 4 ➜ Output 1	C4	Input 4 ➜ Output 3	E4	Input 4 ➜ Output 5
A5	Input 5 ➜ Output 1	C5	Input 5 ➜ Output 3	E5	Input 5 ➜ Output 5
B1	Input 1 ➜ Output 2	D1	Input 1 ➜ Output 4		
B2	Input 2 ➜ Output 2	D2	Input 2 ➜ Output 4		
B3	Input 3 ➜ Output 2	D3	Input 3 ➜ Output 4		
B4	Input 4 ➜ Output 2	D4	Input 4 ➜ Output 4		
B5	Input 5 ➜ Output 2	D5	Input 5 ➜ Output 4		

Method C: Operation via IR Remote Control with IR Discrete Code
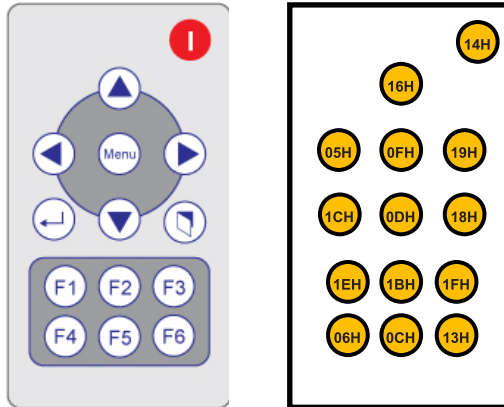
I : Not in use

▲ : Not in use

Menu : Not in use

▼ : Not in use

◀ : Decrease CH

▶ : Increase CH

↵ : Change Input CH

◪ : Change Output CH

F1 : Mapping CH1 to all 5 outputs

F2 : Mapping CH2 to all 5 outputs

F3 : Mapping CH3 to all 5 outputs

F4 : Mapping CH4 to all 5 outputs

F5 : Mapping CH5 to all 5 outputs

F6 : Default mapping

How to operate

Method A: Assign ouput X to play input Y

1. Press first ⬑ then use ◀ or ▶ to select the output channel "X".
2. Once you see the LED displays the desired output channel "X" then press ↵ and then use ◀ or ▶ to select the input channel "Y".
3. Once you reach the desire input & output channel setting, wait for 2 seconds and it'll be done.

Method B: Assign input X to be displayed on output Y

1. Press ↵ first then use ◀ or ▶ to select the input channel "X".
2. Once you see the LED displays the desired input channel "X" then press ⬑ and then use ◀ or ▶ to select the output channel "Y".
3. Once you reach the desire input & output channel setting, wait for 2 seconds and it'll be done.

Method C: Use hot keys to assign input X to be displayed on all 5 outputs

1. Press (F1) if you want to have input channel 1 to be shown on all 5 outputs.
2. Press (F2) you want to have input channel 1 to be shown on all 5 outputs.
3. Press (F3) you want to have input channel 1 to be shown on all 5 outputs.
4. Press (F4) you want to have input channel 1 to be shown on all 5 outputs.
5. Press (F5) you want to have input channel 1 to be shown on all 5 outputs.

Method D: Use hot keys to assign input X to be displayed on output X

1. Press (F6) then you can get the same default channel mapping in software control, as you can see the mapping table below.

Source Channel	➔	Display Channel
Input 1	➔	Output 1
Input 2	➔	Output 2
Input 3	➔	Output 3
Input 4	➔	Output 4
Input 5	➔	Output 5

SAFETY INFORMATION

Safeguards

To reduce the risk of electric shock, do not expose this product to rain or moisture

Do not modify the wall plug. Doing so will void the warranty and safety features.

If the wall plug does not fit into your local power socket, hire an electrician to replace your obsolete socket.

This equipment should be installed near the socket outlet and the device should be easily accessible in the case it requires disconnection.

Precautions

FCC regulations state that any unauthorized changes or modifications to this equipment, not expressly approved by the manufacturer, could void the user's authority to operate this equipment.

Operate this product using only the included external power supply. Use of other power supplies could impair performance, damage the product, or cause fires.

In the event of an electrostatic discharge this device may automatically turn off. If this occurs, unplug the device and plug it back in.

Protect and route power cords so they will not be stepped on or pinched by anything placed on or against them. Be especially careful of plug-ins or cord exit points from this product.

Avoid excessive humidity, sudden temperature changes or temperature extremes.

Keep this product away from wet locations such as bathtubs, sinks, laundries, wet basements, fish tanks, and swimming pools.

Use only accessories recommended by Atlona to avoid fire, shock, or other hazards.

Unplug the product before cleaning. Use a damp cloth for cleaning and not cleaning fluid or aerosols.
Such products could enter the unit and cause damage, fire, or electric shock. Some substances may also mar the finish of the product.

Never open, remove unit panels, or make any adjustments not described in this manual. Attempting to do so could expose you to dangerous electrical shock or other hazards. It may also cause damage to your AT-VGA0505. Opening the product will void the warranty.

Do not attempt to service the unit. Disconnect the product and contact your authorized Atlona reseller or contact Atlona directly.

WARRANTY

Limited Warranty

Atlona Technologies warrants that (a) its products (the AT-VGA0505) will perform substantially in accordance with the accompanying written materials for a period of 3 years from the date of receipt and (b) that the product will be free from defects in materials and workmanship under normal use and service for a period of 3 years. In the event applicable law imposes any implied warranties, the implied warranty period is limited to 3 years from the date of receipt. Some jurisdictions do not allow such limitations on duration of an implied warranty, so the above limitation may not apply to customers that fall within those areas.

Customer Remedies

Atlona Technologies' and its suppliers' entire liability and Customer's exclusive remedy shall be, at Atlona Technologies' decision, either return of the price paid for the product, repair, or replacement of the product that does not meet this Limited Warranty and which is returned to Atlona Technologies with a copy of the Customer's receipt. This Limited Warranty is void if failure of the product has resulted from accident, abuse, misapplication, or natural occurrence. In example but not limited to: power surges (electrical storms, local power outage), dropping the product (or items on the product), contact with fluids, and physical misconduct (i.e. kicking or punching). Any replacement product will be warranted for the remainder of the original warranty period.

No other warranties

To the maximum extent permitted by applicable law, Atlona Technologies and its suppliers disclaim all other warranties, either expressed or implied, including, but not limited to, implied warranties of merchantability and fitness for a particular purpose, with regard to the product and any related written materials. This Limited Warranty gives customer specific legal rights. Customers may have other rights depending on the jurisdiction.

No liability for damages

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Thank you for purchasing this Atlona product. - We hope you enjoy it and will take an extra few moments to register your new purchase.

Registration creates an ownership record if your product is lost or stolen and helps ensure you'll receive notification of performance issues and firmware updates.

At Atlona, we respect and protect your privacy, assuring you that your registration information is completely secure. Atlona product registration is completely voluntary and failure to register will not diminish your limited warranty rights.

To register go to: http://www.atlona.com/registration